DEPARTMENT OF THE ARMY



NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
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Planning, Programs, and Project Management Division Environmental Planning and Compliance Branch

CLEAN WATER ACT, SECTION 404 PUBLIC NOTICE

UNWATERING THE NEW ORLEANS METROPOLITAN AREA FOLLOWING HURRICANES KATRINA AND RITA AND REPAIR OF THE FLOOD PROTECTION SYSTEM IN SOUTHEAST LOUISIANA

Interested parties are hereby notified that the U. S. Army Corps of Engineers, Mississippi Valley Division, New Orleans District (CEMVN), has performed emergency actions after Hurricanes Katrina and Rita including repairs to levee and floodwall breaches; repair of levees and floodwalls; and installation of flood control structures and pumps.

<u>DESCRIPTION OF ACTION:</u> This description of action contains the work items completed or in progress under Task Force (TF) Unwatering (removal of water and emergency repairs to levees after hurricanes Katrina and Rita) and TF Guardian (repairs of levees to pre-storm levels) which involved deposition of fill material into waters of the U.S. and therefore require evaluation under Section 404 of the Clean Water Act. In addition, this description of action contains some items of work taken in response to Hurricanes Katrina and Rita that were not part of TF Unwatering or Guardian. The pumping of floodwaters is not addressed in this description of action as the discharge of flood waters is subject to Section 402 of the Clean Water Act. Repairs to pump stations are not expected to affect waters of the U.S. and are not included in this description of action.

ORLEANS PARISH

17th Street Canal (TF Unwatering)

During Hurricane Katrina, a breach in the levee/floodwall occurred on the east side of the 17th Street Canal just south of the Hammond Highway Bridge. An attempt was made to use concrete Jersey barriers to plug the breach. After one barrier was dumped into the water and floated away because it had a Styrofoam core, that alternative was abandoned. The next course of action was to drop sandbags of various sizes into the breach using military helicopters. After a trial and error period, it was decided that 12,000 pound sand bags offered the best hope of closing the breach. Efforts quickly moved ahead to place nearly 30 bags per hour in the breach utilizing U.S. Army Chinook helicopters. A staging area for filling the sand bags was established at the nearby Coast Guard station. Sand for the bags was purchased from local commercial sources that supplied sand pumped from the Mississippi River.

Beginning on September 3, 2005, rock, gravel, and concrete riprap was dumped into the breach. The rock and gravel used to fill the breaches was purchased from a local commercial source that used materials from quarries in Illinois and Kentucky. On September 5, 2005, a sheetpile wall was completed on the lake side of the Hammond Highway Bridge to seal off the canal from Lake Pontchartrain. As pumping capacity was restored in the area, a gap was created in the sheetpile to allow floodwaters to be pumped out. On September 21, 2005, with Hurricane Rita looming in the Gulf of Mexico, the sheetpile wall on the Hammond Highway Bridge was closed to control water levels in the 17th Street Canal during the event. Immediately following Hurricane Rita, the gap was reopened to allow for stormwater pumping.

London Avenue Canal (TF Unwatering)

Two breaches occurred along London Avenue Canal. At the Lakeshore Canal Bridge across the London Avenue Canal, CEMVN contractors tore out the concrete guardrail on the south side of the Lakeshore Drive Bridge in order to dump riprap into the canal to slow the flow of floodwaters from the lake into the canal. Using sand bags and rip rap, the breach near Robert E. Lee Boulevard was closed by September 5, 2005. The breach near Mirabeau Avenue was closed by the same method by September 9, 2005. Riprap was obtained from road construction materials located nearby and from local commercial sources.

A sheetpile wall was constructed on the lake side of the Robert E. Lee Bridge at the London Avenue Canal on September 19, 2005. A gap was left in the sheetpile wall to allow for drainage out of the canal. On September 21, 2005, the gap was closed in preparation for Hurricane Rita. Immediately following Hurricane Rita, the gap was reopened to allow for stormwater pumping.

17th Street, London Avenue, and Orleans Avenue Canals (TF Guardian)

The repairs along the 17th Street and London Avenue Canals have been broken into two major components, Phase I and Phase II floodwall repairs. Phase I floodwall repairs consist of temporary hurricane protection at the 17th Street Canal breach and the two London Avenue breaches using steel sheetpile. Also, rock was placed in the canals at the breach locations to prevent any scour of the canal bottom from occurring near the near the breach locations during operation of pumping stations. Phase II floodwall repairs consist of returning the project to its pre-storm height plus overbuild. The Phase II floodwall repairs at the three breach sites consist of constructing pile-founded, reinforced concrete T-wall monoliths on the same alignment as the original I-walls.

Three temporary gated structures with associated pumping capacity are being installed at the lake end of the 17th Street Canal, Orleans Avenue Canal, and London Avenue Canal. The gated structures will be closed when storms approach or lake water levels rise to a pre-established height. The purpose of the gates is to prevent stress on the existing I-wall found along both sides of these three canals. Gates will only be kept in a closed position during storm events or high water events in the lake. Dredging of the canals was required at the locations of the temporary structures to prepare the sites. Sediments and debris removed from the canal has been either hauled to an industrial landfill or temporarily stockpiled on an urban median until it is decided what can be done with it.

New Orleans East

At the Air Products and Chemicals facility located on Intracoastal Drive, efforts were made to stop the flooding and pump out the area as quickly as possible. Because this facility supplies a wide range of products (medical quality oxygen, etc.) to much of the United States, an extended period of interrupted production posed a potential for shortages of critical products to the medical and industrial sector. Rock and stone were used to dam up the Maxent Canal at the railroad crossing to reduce the size of the flood basin that needed to be pumped out. The dam in the Maxent Canal was later removed, allowing Pump Station 15 to help unwater areas to the north of the dam.

Inner Harbor Navigation Canal (IHNC)

The breach repairs and other work items along the IHNC were accomplished in areas that are not waters of the U.S. and therefore are not subject to Section 404.

ST. BERNARD PARISH

A contractor was hired to close the breach in the St. Bernard back levee before Hurricane Rita made landfall. Borrow material to close the breach was obtained from a location near the Meraux Food Store and from along the Eikes Canal spoil bank. In September 2005, plans were developed to rehabilitate the back levee to +10 feet NAVD. It was determined that the 0.8 miles of sheetpile wall at the western end of the levee in Orleans Parish had been weakened by the storm surge. The sheetpile was reset back into a vertical position, and a ground level berm ten feet wide was built along the flood side of the wall to strengthen the foundation. Some of this earthen levee extends into the adjacent tidal water. The rest of the levee is being rebuilt within its original footprint a right-of-way and is not subject to Section 404.

Earthen clay material is being barged from commercial borrow pits in Mississippi to augment the material being used to repair the Federal levee along the Mississippi River-Gulf Outlet (MRGO) between the Bayou Bienvenue Control Structure and Verret. Numerous offloading sites are being used alongside the MR-GO. Dredging is occurring in the shallow water near the banks of the MR-GO at multiple locations to allow barges to be pushed up against the bank for unloading. The material is being cast adjacent to the unloading sites and is being replaced in the access corridors once the offloading operations are concluded.

PLAQUEMINES PARISH

Federal Levees

To help dewater Plaquemines Parish, parish workers and a USACE hired labor unit cut several breaches to allow drainage from the protected areas on the east bank of the Mississippi River. The east bank back levee was breached at Gravolet Canal and in Bohemia. A CEMVM hired labor unit created the breach at Bohemia on September 5, 2005 and then closed it two days later when flood waters had receded. The breach at Gravolet Canal grew rapidly, eventually scouring a 200 feet wide breach that was 25 feet deep and extended to Highway 39. This breach was closed by the USACE on September 20, 2005. Further repairs using sheetpile were required to ensure the breach stayed closed.

Non-Federal Levees

Two breaches occurred in the northern stretch of the non-Federal Plaquemines Parish east bank back levee in the vicinity of Braithwaite and Scarsdale. Emergency work to close the breaches was completed by the Louisiana National Guard and Plaquemines Parish staff. The USACE determined that, because of the extent of the damage done to the foundations of the levees in the vicinity of the breaches, the levees could not be rebuilt to hurricane standards without expanding the levee footprint. Plans are to rebuild approximately 4,000 feet of the levee by placing fill material on the flood side of the existing levee. This work impacts 21.3 acres of fresh/intermediate wetlands and will require mitigation.

The privately-owned Citrus Lands Levee on the west side of the Mississippi River in Plaquemines Parish breached in two locations as Hurricane Katrina passed through the area. Emergency repairs were completed by air dropping sand bags into the breaches. After sandbags had sealed off most of the flows, a contractor placed rock into the breaches to stop seepage. More permanent repairs are being completed using clay from a local borrow source. As a result of the permanent repairs at the northern breach site, 2,000 feet of the interior drainage canal is being moved to allow for a larger levee footprint. The proximity of a radio tower near the southern breach required rerouting of the interior drainage canal around the tower pads, adding approximately 4,200 feet to the length of the canal. Much of the new canal work along with the contractor furnished borrow source is being done in an area determined to be wet pasture, and as such mitigation is required.

JEFFERSON PARISH

Repairs along the west side of the 17th Street Canal consist of repairing foreshore protection on the flood side, along floodwalls and bulkheads. The riprap at the base of the I-walls and the crushed stone adjacent to floodwalls will be replaced. The bulk of the damage to the protection system along Lake Pontchartrain is erosion and scour at the base of the floodwalls and the displacement of lakeside foreshore protection. Foreshore protection and damaged concrete slope paving is being replaced.

HURRICANE RITA - LAFOURCHE PARISH

Hurricane Rita's storm surge damaged the Larose to Golden Meadow levee in two areas. The flood side of the south levee and the mitigation levee at the Point Au Chein Wildlife Management Area experienced erosion along the berm due to storm surge. Two control structures along the mitigation levee also experienced erosion where the structures tie into the levees.

Repairs to the southern Larose to Golden Meadow levee consist of installing a small sheetpile bulkhead wall, located along the levee toe and fortified with riprap on both sides in the areas scoured by the storm. Repairs to the mitigation levee require reshaping approximately half of the levee and placing graded stone on top of the two control structures to replace materials washed away during the storm.

BORROW MATERIAL SOURCES

TF Guardian personnel investigated and approved or disapproved earthen clay material for levee repairs. USACE engineers have estimated that 7,500,000 cubic yards of clay is required to rehabilitate the Federal levees to pre-Hurricane Katrina design specifications.

A total of 63 potential sites were investigated. Of this total, 10 were contractor-furnished commercial borrow pits of which most were located in Mississippi. These commercial pits are either already permitted through the USACE permitting program or do not affect waters of the U.S. Approximately 266 acres of the 1,712 acres identified in Orleans, Plaquemines, and St. Bernard Parishes as potential borrow sites are wetlands. About 56 of these wetland acres are in the process of being used, and those 56 acres are primarily low quality wetlands. Section 404 actions associated with the borrow pits includes the deposition of overburden around the edges of the pits to access underlying clay material.

<u>PROJECT AUTHORITY</u>: Congressional authority is Public Law 84-99 (33U U.S.C. 701n), which provides for the use of Flood Control and Coastal Emergencies funds for, among other things, permanent rehabilitation of Federal and non-Federal flood damage reduction projects and Federally-authorized hurricane and storm damage reduction projects.

<u>PROJECT PURPOSE</u>: The purpose of the proposed action is to bring Federal flood protection features to their previously-authorized level of protection. In addition, the proposed action includes the repair of non-Federal flood protection features damaged by hurricane Katrina.

<u>DISPOSAL SITES</u>: Deposition of fill material into waters of the U.S. will mainly occur on adjacent to existing levees and levee rights-of-way. Rock, sheetpile and fill material will be placed in some locations to provide temporary coffer dams around sites where permanent levee repairs are being made.

<u>PROPERTIES ADJACENT TO DISPOSAL SITES</u>: The properties adjacent to disposal areas include intertidal marsh, scrub/shrub, and open water on the flood side of levees; interior drainage canals and developed and un-developed lands on the protected side of levees.

<u>QUANTITIES AND FREQUENCIES</u>: The total amount of material to be used for repair is unknown since design work is incomplete. There have been 59 construction contracts awarded for the flood protection system repairs.

EVALUATION FACTORS: The decision whether to continue maintenance and repair of the structures will be based on evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits that reasonably may be expected to accrue from the proposal must be balanced against any reasonably foreseeable detrimental effects. All factors which may be relevant to the proposal will be considered; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA): All of the Federal flood protection projects have been addressed in previously-completed environmental impact statements and environmental assessments pursuant to NEPA. Maintenance of these projects is covered in the

NEPA documents. Repairs to the Federal and non-Federal levees and floodwalls is not expected to cause significant impacts since work will normally occur within existing levee and floodwall rights-of-way. The primary sources of potential impacts not covered in previous NEPA documents are the borrow pits needed to provide fill material for levee repairs. A comprehensive NEPA document is under preparation to address the impacts of borrow pits and other work associated with repairing the flood protection projects that are not addressed in existing NEPA documents. The environmental assessment will be available for public review and comment in April 2006.

STATE WATER QUALITY CERTIFICATION: Section 401 of the Clean Water Act normally necessitates state water quality certification for some features of the proposed work. However, the CEMVN will not need to obtain a State Water Quality Certification pursuant to Section 401 of the Clean Water Act from the Louisiana Department of Environmental Quality since they have sent a letter to the U.S. Army Corps of Engineers and the Environmental Protection Agency dated 7 September 2005, which waives and dispenses with the requirement of State Water Quality Certification prior to performing such work as needed to repair, replace, or restore public infrastructure damaged or destroyed by hurricane Katrina.

COASTAL ZONE CONSISTENCY DETERMINATION: The CEMVN has coordinated some features of the proposed action with the Louisiana Department of Natural Resources (LDNR), Coastal Management Program office under emergency procedures of the U.S. Army Corps of Engineers. The LDNR has so far reserved comment on the emergency actions. The LDNR will review the Corps' actions for consistency with Louisiana's Coastal Resources Program once the Corps formally requests concurrence with prepared consistency determinations. The LDNR is also reserving the right to consider the need for mitigation once the projects are reviewed under their normal procedures.

ENDANGERED SPECIES: The CEMVN has consulted with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service concerning threatened and endangered species for some of the features under the proposed action. Based on this consultation, the CEMVN has determined that the repair activities are not likely to adversely affect the continued existence of any endangered species or result in the destruction or adverse modification of critical habitat of such species. The CEMVN will continue to consult with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service as features are developed.

ESSENTIAL FISH HABITAT: The initial determination is that this proposed action will not have a substantial impact on Essential Fish Habitat or Federally-managed species in the Gulf of Mexico. Some of the project features have been reviewed by the National Marine Fisheries Service, and so far the National Marine Fisheries Service has agreed with the CEMVN that the actions would not adversely affect Essential Fish Habitat or Federally-managed species in the Gulf of Mexico. The final determination relative to impacts and the need for avoidance and mitigation measures is subject to review by the National Marine Fisheries Service.

<u>CULTURAL RESOURCES</u>: The areas to be repaired have so far all previously been confirmed as free of known cultural resource sites. Borrow sites that have not been previously used are being coordinated with the Louisiana State Historic Preservation Officer (SHPO). One borrow pit has been relocated to avoid impacts to two cemeteries. All necessary precautions and

documentation will be obtained prior to adversely affecting any historic structures. Where impacts to any historic structures are unavoidable, coordination with the SHPO will continue and documentation of the structures will be obtained prior to affecting them.

SECTION 404(B)(1) GUIDELINES: Section 404(b)(1) actions anticipated under this action include disposal of overburden material from some borrow pits in wetlands and the deposition of rock, sheet piling, and other fill material in canals and other water bodies adjacent to levee and floodwall repairs. Most borrow pits have been designated in areas not subject to Section 404 regulations. Unavoidable impacts to the wetlands occurring in borrow pits and within levee realignments will be mitigated.

All actions subject to Section 404 will be evaluated in a Section 404(b)(1) evaluation, which is being prepared by the CEMVN.

<u>COORDINATION</u>: The following is a list of agencies to which a copy of this notice is being sent for coordination purposes:

Region VI, Environmental Protection Agency
Regional Director, National Marine Fisheries Service
Regional Director, U.S. Fish and Wildlife Service
Commander, Eighth Coast Guard District
Louisiana Department of Wildlife and Fisheries
Louisiana Department of Environmental Quality
Louisiana Department of Natural Resources
Louisiana Department of Transportation and Development
Louisiana State Historic Preservation Officer
All affected parish governments

PROJECT PLANS: Plans for the proposed work will be on file in the Office of Environmental Planning and Compliance Branch, U.S. Army Engineer District, New Orleans, 7400 Leake Avenue, New Orleans, Louisiana, and may be seen by anyone having an interest in them. Prior arrangements must be made to view the project plans by contacting Mr. Gib Owen at (504) 862-1337 or by email at gib.a.owen@mvn02.usace.army.mil

<u>PUBLIC INVOLVEMENT</u>: Interested persons may submit comments on the proposed work or suggest modifications. All comments received within 30 days of the date of this notice will be considered.

Any person who has an interest which may be affected by the levee and floodwall repairs or the repair of water control structures and pump stations may request a public hearing. The request must be submitted in writing to the district engineer within the comment period of this notice and must clearly set forth the interest, which may be affected, and the manner in which the interest may be affected by this activity. You are requested to communicate the information contained in this public notice to any parties who may have an interest in this activity.

<u>COMMENTING AND INFORMATION</u>: Comments concerning the proposed work should be directed to: U.S. Army Engineer District, New Orleans, Attention: CEMVN-PM-RP, Post Office Box 60267, New Orleans, Louisiana 70160-0267. Comments may also be sent by Fax to (504) 862-2088. Questions about the proposed action may be directed to Mr. Gib Owen at (504) 862-1337 or by email to gib.a.owen@mvn02.usace.army.mil.

April 17, 2006
Date

Robert J. Martinson

Acting Chief, Environmental Planning

and Compliance Branch